Jim Doyle
Governor

Helene Nelson
Secretary

**State of Wisconsin**

Department of Health and Family Services

June 2006

RE: Update on the Wisconsin Public Health Information Network

Dear Wisconsin Public Health Partner:

Developing an integrated electronic public health information system is the first system priority of our Healthiest Wisconsin 2010 plan. We are meeting this priority through the Wisconsin Public Health Information Network (PHIN).  PHIN is all the information technology resources used by public health coordinated so they work together as a whole, are easy to use, powerful, and secure. These resources include the individual computer systems like SPHERE or the Health Alert Network. PHIN provides the technical glue that holds the pieces together. It also supplies "shared services" that perform common functions for all components, such as identifying users and controlling access, or providing sophisticated analysis tools. Wisconsin's PHIN is not something that will arrive all at once as a monolith, but is being built up piece by piece over time. Regardless, this year we are making significant progress on several key pieces. This letter is to share with you the status of these components.

**Wisconsin Electronic Disease Surveillance System (WEDSS).**  This is the Wisconsin implementation of the national electronic disease surveillance system concept (NEDSS). A team of state and local public health representatives evaluated the NEDSS Base System offered by the CDC, top-rated public sector systems, the Wisconsin SPHERE system, and commercial systems. The team recommended acquiring a commercial system based on its assessment that this course best meets the goals of fully meeting state and local requirements, timely implementation, and affordability.  The Division of Public Health (DPH) accepted the recommendation and issued in early March a Request for Proposals (RFP) for an electronic disease and environmental event surveillance and case management system. We have selected the Atlas Public Health Information Network System (APHINS), which is in production in Los Angeles, San Diego and Sacramento Counties in California. The Milwaukee City Health Department is contributing substantially toward the acquisition costs. Other funding sources include our federal NEDSS grant; and hospital, public health and pandemic influenza preparedness grants. Initial implementation is planned to begin later this summer with three pilots: Milwaukee City Health Department, Brown County, and Burnett County.  Because acquisition of a system for tuberculosis was put on hold for WEDSS, we included areas with relatively high tuberculosis occurrence when selecting the pilots. Full implementation statewide is planned to begin in 2007. Aasa Schmit is the full time WEDSS Project Manager and may be contacted at schmiad@dhfs.state.wi.us.

WEDSS has a large scope and will be a foundational system for the Wisconsin PHIN.  All existing DPH reporting streams and systems dealing with communicable diseases will be consolidated into it. Several other systems (such as SPHERE, Cancer Registry, Wisconsin Immunization Registry) are candidates to link to WEDSS.  These systems will be linked after the initial statewide implementation. A key to linking systems is the use of a common master client

*Wisconsin.gov*

index.  The WEDSS RFP asked proposers to describe how they can interface with an external master client index. To avoid adding any more complexity to what will be a challenging implementation, we do not plan on implementing WEDSS with an external master client index initially, but we want to be sure it can use one later on.

We will try to implement WEDSS in a way that it provides some of the "shared services" we want to make available to all components of the Wisconsin PHIN. One such service we plan to implement through WEDSS is the standardizing of addresses and assigning of "geocodes" (latitude and longitude).  Electronic Lab Reporting is another possibility, which brings us to the next topic.

**Electronic Laboratory Reporting (ELR).** We are expecting WEDSS to provide ELR for communicable diseases.  At a minimum, we are requiring WEDSS to accept lab results sent electronically according to CDC standards and associate them with client records. We are now analyzing the Atlas proposal to provide the technology to also extract the information from laboratory information systems, translate it into standard terms if necessary and transmit it to WEDSS. A team of DPH, Wisconsin State Laboratory of Hygiene (WSLH) and UW Division of Information Technology (DoIT) experts is assessing the viability of Atlas' proposal and will guide overall implementation of ELR in WEDSS. Concurrent with the WEDSS acquisition, work continues on adding labs beyond the three (WSLH, Marshfield, City of Milwaukee Health Department) that are currently reporting electronically to DoIT.  The WSLH will be making information reported this way available to authorized parties via a web portal it is developing for laboratory data of all kinds.

While WEDSS provides an opportunity for furthering electronic lab reporting in Wisconsin, it is only one aspect of a broader capacity building effort occurring under the leadership of the WSLH.  The Wisconsin State Laboratory of Hygiene has primary responsibility to collect, translate and transmit to the Division of Public Health, that laboratory data which is salient to public health. This communication effort implies and requires the existence of an extensive Wisconsin laboratory network for both clinical and environmental laboratory information.  The WSLH's role is to lead, facilitate and coordinate the operation of that network and to provide technical assistance to DPH in network related activities. The WSLH and DPH have recently issued a statement about our shared missions and related roles in this key area, which I am attaching for further explanation.

**Analysis, Visualization and Reporting (AVR).** AVR is equivalent to what's called "business intelligence" in the business world. This is creating statistics and performing other analysis on data to describe populations with rates and charts, find correlations, define trends, etc. It is the task of turning data into information.  DPH has acquired, and is now piloting, software called the SAS Enterprise Business Intelligence Server (EBIS). This provides a web portal through which public health partners can access and manipulate data for epidemiology and other informatics. It provides the power of SAS in a user-friendly way, supports the matching and merging of datasets, and informative display of results. It will increase the accessibility and usefulness of data collected at local and state levels, according to confidentiality constraints. We will be providing demonstrations and training later in the year, including at the annual statewide preparedness conference in September. To guide and support this important product and service

of the Wisconsin PHIN, we have hired a full time AVR Manager. Terry Hiltz can be contacted at HiltzTA@dhfs.state.wi.us.

**Partner Communications.** This is one of the core PHIN functional areas defined by the CDC. Our key endeavor here has been the Health Alert Network (HAN). It provides critical, secure and dependable statewide communication, collaboration and alerting for state and local partners of many kinds.

We have several initiatives underway and planned for the partner communications area. First, we want to make what is now HAN into a true Web portal for all of Wisconsin PHIN's resources. This involves improving the look and feel of the entry Web pages and of user navigation within and between them. It also means adding the user customization options similar to those associated with portals such as Yahoo. We will also review the registration process, which we understand is burdensome to new users. Single sign-on for systems accessible through the portal is another goal. In this redesign the communications functions of HAN will be retained in the HAN, but the HAN will become only one of the resources accessible through the Wisconsin PHIN portal. A "HAN/PHIN user group" representing all partners is currently defining requirements for this redesign and will guide us in its implementation.

Another aspect of this HAN/PHIN redesign will be comparing the functionality of HAN/PHIN with that of the E-SPONDER system. E-SPONDER is a Web-based incident/emergency management system being provided statewide by Wisconsin Emergency Management free to all organizations responsible for emergency management. It appears to have some communications and collaboration functionality similar to that in HAN. We need to ensure that any redundancy between these systems works to the advantage of both.

Further enhancing the security of the Wisconsin PHIN is a third initiative in the partner communications area. We will continue to implement the Distributed Identify Verification Administration (DIVA) process, which ensures that PHIN users are properly identified and authorized. We also plan to pilot limited implementation of some form of stronger user identification, possibly in conjunction with other state agencies.

I hope these summary highlights of key activities in the Wisconsin PHIN are helpful. Questions on these or other PHIN activities may be directed to the PHIN Program Director, Ted Ohlswager, at OHLSWTS@dhfs.state.wi.us.
Sincerely,

Sheri Johnson, Ph.D.
Administrator and State Health Officer
Division of Public Health